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RE: YERAZUNIS, et al. - US Appl'n No. 09/150,360
Att'y Docket No. 3140-25A/1159.41346CP6
Examiner V. Le - Group 2623

SUBMISSION OF APPEAL BRIEF

Sir:

Applicant hereby submits the attached APPEAL BRIEF (46 pages) ; TRANSMITTAL (2 pages) and CREDIT CARD PAYMENT FORM (1 page) for entry in the above-noted application.

CERTIFICATE OF TRANSMISSION:

I hereby certify that the attached **APPEAL BRIEF (46 pages);** **TRANSMITTAL (2 pages) and CREDIT CARD PAYMENT FORM (1 page)** are being **FORMALLY TRANSMITTED** *via* the USPTO Main Facsimile No. 571-273-8300 on **November 28, 2005**.

Stacey Keaton

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Docket No: 3140-25A
File No: 1159.41346CP6
Client No: MERL-1197-CIP

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: YERAZUNIS et al.

Serial No: 09/150,360

Filed: September 9, 1998

For: VIDEO RECORDING DEVICE FOR TARGETING WEAPON

Group Art Unit: 2623:

Examiner: V. Le

TRANSMITTAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

November 28, 2005

Sir:

Transmitted herewith is an Appeal Brief in the above-identified application.
[ ] No additional fee is required.
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The fee (if applicable) has been calculated as shown below:

	NO. OF CLAIMS	HIGHEST PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	20	20	0	x $50 =	$0
Independent Claims	3	3	0	x $200 =	$0
		Appeal Brief Fee			$500.00
		TOTAL FEE DUE			$500.00

Docket No: 3140-25A
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Client No: MERL-1197-CIP

PATENT

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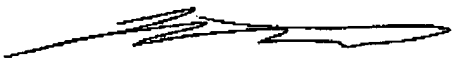
[X] Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment, to Deposit Account No. 01-2135, including any filing fees under 37 CFR 1.16 for presentation of extra claims and any patent application processing fees under 37 CFR 1.17.

Respectfully Submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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PATENT

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Serial No: 09/150,360
Filed: September 9, 1998
For: VIDEO RECORDING DEVICE FOR TARGETING WEAPON

Group Art Unit: 2623:
Examiner: V. Le

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

November 28, 2005

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed, concurrently with a Pre-Appeal Brief Request for Review, on September 26, 2005 and further to a Notice of Panel Decision from Pre-Appeal Brief Review issued on October 26, 2005, maintaining the rejection of all claims, as set forth in the Official Action issued on April 28, 2005 (i.e. the first Official Action issued after the Remand of Appeal issued on December 19, 2003 in a prior appeal).

I. REAL PARTY IN INTEREST

Mitsubishi Electric Information Technology Center America, Inc. has been assigned all rights in this application, as recorded at Reel 9459, Frame 0064. The name of Mitsubishi Electric Information Technology Center America, Inc. was changed to Mitsubishi Electric Research Laboratories, Inc., as recorded at Reel 011564, Frame 0329, on January 23 2001. Accordingly, Mitsubishi Electric Research Laboratories, Inc. is the

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real party in interest.

II. RELATED PRIOR OR PENDING APPEALS, INTERFERENCES OR JUDICIAL PROCEEDINGS

As noted above, a prior appeal was remanded by the Board of Patent Appeals and Interferences, in a decision documented in the Remand of Appeal issued on December 19, 2003. The prior appeal requested that the Board review an earlier rejection of all the currently pending claims of the present application. The decision of the Board in the prior appeal found that the Examiner's Answer filed in that appeal failed to comply with MPEP 1208, and accordingly requested that the Examiner prepare a substitute Answer. The decision also concluded that the application is "special" and requires immediate action.

This Brief is submitted in support of an appeal of another rejection of all the pending claims in the subject application, as set forth in the first Official Action after the Remand of the [prior] Appeal, which issued on April 28, 2005, some 16 months after the Remand.

III. STATUS OF CLAIMS

Claims 1-40 are pending. Each of claims 1-40 stands rejected and is under appeal.

IV. STATUS OF AMENDMENTS

An Amendment, filed on December 14, 1999, has been entered.

V. SUMMARY OF INVENTION

The invention claimed in the present application is a data recording device or method. In a preferred embodiment the device is mountable to a gun for recording video images along a target line before and after the firing of the gun (see generally the Abstract, and Figures 9, 10, 11 and 12).

In general, and with reference to Figure 3, the recording device preferably includes a camera 40, comprised of a lens 44 and an image sensor 46 (page 8, lines

26-34), an analog to digital converter 48 and support electronics 52 (page 3, line 35 to page 9, line 12), a central processor 54 (page 9, lines 25-33) executing program steps stored in ROM 64 (page 10, lines 11-13) to store video image data in DRAMs 58 and 60 (page 9, line 34 to page 10, line 10). The central processor 54 is provided with a number of inputs 70-78, including an event sensor 70 (page 10, lines 13-15), and a serial output channel 78 (page 10, lines 18-23) which permits stored video images to be downloaded to an external video device for viewing.

With reference to Figure 14, the exemplary embodiment of the device particularly adapted for use with a gun further comprises an enable sensor 50, which allows the recording device to be activated automatically when the gun is removed from the user's holster (page 26, line 35 to page 27, line 32), a non-volatile memory 83 to avoid battery drain when the video recording device is not recording (page 30, lines 15 to page 31, line 5), a date/time clock 84 coupled to a character generator 85 to time and data stamp the video data (page 32, lines 3-10), and a microphone 86 and A/D converter 87 to add an audio track to the captured video images (page 32, line 34 to page 33, line 8).

Independent claim 1 is directed to a method for recording data. As, for example, shown in Figure 5, the method includes repeatedly storing video image data within a semiconductor memory within a video recording device mounted to a weapon; sensing at least one discharge of said weapon with a weapon discharge sensor output signal; and in response to the detection of said weapon discharge sensor output signal, preserving in said semiconductor memory within said video recording device, video image data corresponding generally to an area surrounding [a] target line and corresponding to at least some of said video image data stored proceeding and subsequent to the weapon discharge sensor output corresponding to said at least one firing of said weapon.

As described at page 11, line 11 to page 12, line 23, and with reference to Figure 4, the semiconductor memory 58 may, for example, be structured as a circular memory buffer. The video recording device, absent receipt of some trigger event from sensor 54

or activation of other input by the user, continues to capture frame data in successive locations of the circular buffer, over-writing previously received frame data stored in respective buffer locations with the most recently received frame data. The semiconductor memory buffer is sized as to permit a desired number of frames to be concurrently stored in the buffer.

As explained at page 12, line 24, through page 13, line 31, upon detection of a trigger event, certain existing frame data beneficially ceases to be overwritten while frames continue to be stored in other frame locations of the buffer. Following the recording of a predetermined number of additional frames after the triggering event, and typically, although not necessarily, after the buffer becomes full, the video recording device ceases to record further frame data and the data in the buffer, which represents frame data from both before and after the triggering event, are preserved.

In one preferred embodiment, it is envisioned that the semiconductor memory will support the storage of 5 frames of video data per second for approximately 30 seconds. If it is desired to have the same number of frames before and after detection of a triggering event from sensor 70, 75 frames could be recorded and stored in the circular buffer before the triggering event, and seventy-five afterwards, (page 13, line 32 to page 14, line 14).

Independent claim 16 is directed to an apparatus for storing data. In addition to the limitations corresponding to those of claim 1, discussed above, claim 16 recites a weapon discharge sensor operative to generate a weapon discharge sensor output (see page 13, lines 1-16); at least one semiconductor memory (page 9, lines 34 to page 10, line 10); a video camera (page 8, lines 26-34); and a controller operative to cause the storage of digital data representative of video image data within the semiconductor memory at predetermined times before and after generation of the weapon discharge output signal, and to preserve selected digital data in the semiconductor memory in response to the weapon discharge sensor output signal (page 4, line 33, through page 5, line 6; page 28, line 19, through page 29, line 20; and page 29, line 31, through page

30, line 6).

Claims 2-15 and 17-35, which depend from base claims 1 and 16, recite other disclosed features of the invention.

For example, claims 2 and 17 require that the weapon is a gun (see, for example, Figures 9-12).

Claims 3 and 19 require sensing the weapon discharge with an accelerometer (see, for example, page 13, line 5; and page 28, lines 1-7).

Claims 4 and 20 require sensing the weapon discharge sensor with a microphone (see, for example, page 28, lines 7-12).

Claims 5 and 21 require that the weapon includes a trigger and the trigger activate or be coupled to a switch (see, for example, page 28, lines 12-18).

Claims 6 and 18 require preserving within the semiconductor memory, video image data corresponding to at least some data stored prior to each discharge sensor output signal and at least some data stored subsequent to that discharge sensor output signal (see, for example, page 28, line 19, to page 29, line 20).

Claims 7 and 22 require storing video image data within said semiconductor memory periodically (see, for example, (see, for example, page 13, lines 32-34, and page 18, lines 27-33)

Claims 8 and 23 require storing or preserving video data associated with each discharge of the weapon in a portion of the semiconductor memory assigned for the respective discharge (see, for example, page 29, lines 3-6).

Claim 9 requires that the portion of memory set aside for each successive discharge under claim 8, be smaller than the portion associated with the prior discharge (see, for example, page 28, line 31 through page 29, line 12).

Claim 10 requires generating an audio signal with a microphone electrically coupled to the video recorder, sampling and converting the audio signal from the microphone with an analog to digital converter and storing in the semiconductor memory at least some of the digital data extending temporally around each discharge of

the weapon (see, for example, page 32, line 34 through page 33, line 8).

Claim 11 further requires employing a non-linear quantization technique for representing the stored audio data (see, for example, page 32, line 34, through page 33, line 8).

Claims 12 and 31 require generating a signal with a sensor having a first state when the weapon is within the holster and a second state when the weapon is not within the holster, and storing video data only when the holster sensor is in the second state (see, for example, page 26, line 35 to page 27, line 32).

Claims 13, 14 and 25 require reading selected data from the semiconductor memory in response to each weapon discharge sensor output signal, writing the selected data into a second non-volatile semiconductor memory, and preserving it in the non-volatile memory at least until the video data is read from the non-volatile memory in response to a user providing a valid password (see, for example, page 30, line 15 to page 31, line 8, and page 31, lines 26-31).

Claim 15 requires storing date and time information within the semiconductor information in association with at least some of the video image data (see, for example, page 32, lines 3-10).

Claim 24 requires the recording device to include at least one DRAM in the at least one semiconductor memory (see, for example, page 30, lines 7-14).

Claim 26 requires the non-volatile memory of claim 25 includes at least one flash memory, claim 27 requires it to comprise at least one bubble memory, and claim 28 requires it to comprise an electronically erasable programmable random access memory (see, for example, page 30, line 33 to page 31, line 1).

Claims 29 and 30 require the controller of the recording device to include a bi-directional interface for reading out the contents of the semiconductor memory in response to a user request including a password, and that the bidirectional interface may be a serial bidirectional interface (see, for example, page 31, line 26 to page 32, line 2).

Claim 32 requires that the enable sensor of claim 31 comprise a switch, claim 33 requires that the sensor comprise a magnetically actuatable switch; and claim 34 requires that the magnetically actuatable switch comprise a reed switch (see, for example, page 26, lines 11-30).

Claim 35 requires a clock that is operative to generate date and time information, a character generator that is operative to generate digital representations of said date and time information, and that the controller be operative to store at least some of said digital representations of said date and time information within said at least one semiconductor memory in association with selected video image data (see, for example, Figure 14 and page 32, lines 3-10).

Independent claim 36, requires a data recording device for preserving data that includes a sensor configured to detect an occurrence, a memory configured to store at least one of audio and video data such that later stored data is recorded over previously stored data, a non-volatile memory, and a controller configured to transfer the data stored in the memory to the non-volatile memory based on the detection of the occurrence by the sensor (see, for example, page 30, line 15 to page 31, line 8).

Claims 37-40, which depend from base claim 36, recite other disclosed features of the invention.

Claims 37 and 38 depend from claim 36 and recite features regarding transfer of data from the memory to the non-volatile memory, that are discussed above.

Claim 39 requires the elements of the recording device to be incorporated in a portable housing (e.g. Figure 10 and page 25, lines 27-34).

Claim 40 requires that the recording device further comprise a weapon, and that the triggering event is the firing of the weapon, both of which are discussed above.

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VI. GROUNDS FOR REJECTION PRESENTED FOR REVIEW

The obviousness rejection of claims 1-2, 5-9, 13, 16-18, 24 over Black (U.S. Patent No. 4,835,621) in view of Katayama (U.S. Patent No. 5,294,978).

The obviousness rejection of claims 3 and 19 over Black in view of Katayama and further view of Koen (U.S. Patent No. 5,616,863).

The obviousness rejection of claims 4, 20-23 and 25-28 over Black in view of Katayama and in further view of Andersson et al. (U.S. Patent No. 5,991,043).

The obviousness of claims 10-11 over Black in view of Katayama and in further view of Fielder (U.S. Patent No. 5,845,240).

The obviousness rejection of claims 12, 14-15, and 29-35 over Black in view of Katayama and in further view of Scerbo (U.S. Patent No. 5,546,124).

The obviousness of claims 36-38 over Katayama.

The obviousness of claims 39-40 over Katayama in view of Golubic (U.S. Patent No. 5,026,158).

VII. BRIEF DESCRIPTION OF THE REFERENCES

Black (U.S. Patent No. 4,835,621)

Black is directed to a video recording device having a gunstock and support structure, on which a hand-held video camera recorder that records onto videotape can be mounted. The camera recorder has a lens structure that defines a line of sight for the device, and a video monitor and a viewfinder mounted to the gunstock. A gun sight is located in the line of sight so as to be visible through the viewfinder when the video camera recorder is recording. Part of the gunstock structure is adapted to allow the user to conveniently activate the on/off video recording switch of the video camera for sequentially starting and stopping the recording.

In column 3, lines 11-15, and column 7, lines 39-47, Black describes the initial recording of images. A trigger is provided on the gunstock to activate a light visible through the viewfinder when the trigger is pulled. When activated, the light is also

simultaneously recorded on the videotape.

Thus, according to Black a flash of light is recorded with the video image to mark the recorded image to indicate the occurrence of a triggering event, i.e. the operation of the light trigger. Black discloses turning off the video recording switch of the video camera to stop the recording, which preserves the recorded images on video film.

Katayama (U.S. Patent No. 5,294,978)

Katayama is directed to recording images of an area on semiconductor memory (DRAM). The recording is activated and/or deactivated based on a change in the images of the area being recorded (e.g. if the current image of the area is darker or lighter than a prior image of the area etc.). In column 4, line 23-31, Katayama discloses the deactivation of recording based on detection of a change in a static scene, with image frames before and after the change in the static scene being stored.

Thus, Katayama discloses deactivating recording in response to a change in the imaged area itself. The deactivation of recording preserves the recorded images on the semiconductor memory.

Katayama also discloses that the recorded images are transferred from the semiconductor memory to a frame buffer for purposes of display. Hence, according to Katayama the preserved images are transferred from the semiconductor memory to a frame buffer for display.

Koen (U.S. Patent No. 5,616,863)

Koen is directed generally to a side surface mounted accelerometer assembly.

Andersson et al. (U.S. Patent No. 5,991,043)

Andersson discloses a microphone for detecting a weapon discharge.

Fielder (U.S. Patent No. 5,845,240)

Fielder is directed to a recording method and apparatus that enables a user to

select for recall and preservation portions of audio, video or other data that have been recorded on a recording medium of finite length, thereby allowing the recording and reproduction of events occurring before the decision to record or reproduce them is made. The disclosed embodiment is an audio data recorder that stores audio signals sequentially in digital form in a circular series of input buffers. The user is given the ability to capture the whole or any portion of the data in the circular input buffers before the data is overwritten with new input data.

Scerbo (U.S. Patent No. 5,546,124)

Scerbo is directed to a handgun holster on which an audio and/or video recorder is mounted and secured, and which has a holster-mounted recorder activation switch. The switch is configured to activate the recorder upon removal of the handgun from the holster, which remains activated until the handgun is returned to the holster.

Golubic (U.S. Patent No. 5,026,158)

Golubic discloses an image recording unit housing 16 which is separate from the control unit 18.

VIII. THE REJECTION

In response to the Remand on Appeal issued on December 19, 2003, which included a requirement for immediate action by the Examiner, the Examiner on April 28, 2005, issued a further Official Action reopening prosecution and rejecting:

Claims 1-2, 5-9, 13, 16-18, 24 as obviousness, under 35 U.S.C. §103(a), over Black (U.S. Patent No. 4,835,621) in view of Katayama (U.S. Patent No. 5,294,978).

Claims 3 and 19 as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and further view of Koen (U.S. Patent No. 5,616,863).

Claims 4, 20-23 and 25-28 as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Andersson et al. (U.S. Patent No. 5,991,043).

Claims 10-11 as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Fielder (U.S. Patent No. 5,845,240).

Claims 12, 14-15, and 29-35 as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Scerbo (U.S. Patent No. 5,546,124).

Claims 36-38 as obviousness, under 35 U.S.C. §103(a), over Katayama.

Claims 39-40 as obviousness, under 35 U.S.C. §103(a), over Katayama in view of Golubic (U.S. Patent No. 5,026,158).

IX. ARGUMENT

Appellants respectfully traverse the rejections based on the prior art applied against the claims now pending on appeal. As discussed below in detail, it is respectfully submitted that the Examiner has not met the burden of proof in establishing that the appealed claims are anticipated or obvious. In this regard, the rejection lacks the requisite supporting factual basis and/or reasonable rationale, and accordingly cannot be understood, recited limitations have been ignored, and the relied upon art has been construed in a manner inconsistent with its own teachings. It is further respectfully submitted that the rejection relies upon art that has been combined without any motivation to do so. Further still, it is respectfully submitted that the art applied in rejecting the claims neither teaches nor suggests the claimed invention. It is also respectfully submitted that the rejections are at best based on an improper hindsight reconstruction of the claimed invention.

1. THE EXAMINER HAS FAILED TO ESTABLISH A PRIMA FACIE CASE

The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the examiner. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985); In re Piasecki, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984).

The limitations required by the claims cannot be ignored. See In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). All claim limitation, including those which are functional, must be considered. See In re Oelrich, 666 F.2d 578, 212 USPQ 323 (CCPA 1981). Hence, all words in a claim must be considered in deciding the patentability of that claim against the prior art. Each word in a claim must be given its proper meaning, as construed by a person skilled in the art. Where required to determine the scope of a recited term, the disclosure may be used. See In re Barr, 444 F.2d 588, 170 USPQ 330 (CCPA 1971).

The Examiner must provide sufficient factual basis or rationale as to how features of the invention recited in the claims are taught or suggested in the applied art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). That is, objective evidence must be presented by the Examiner in support of the rejection. Without such support, the rejection is improper per se.

It is respectfully submitted that the Examiner has failed to establish a prima facie case for the rejection. More particularly, the Examiner has failed to provide objective support or reasonable rationale for the rejections, has ignored limitations recited in the claims, and has applied art in a manner inconsistent with its teachings.

It is further respectfully submitted that the unsupported statements asserted in support of the rejection are nothing more than personal views, which are based either on pure speculation or on the subject application disclosure.

INDEPENDENT CLAIM 36 AND ITS DEPENDENT CLAIMS

Claims 36-38 stand rejected as obvious, under 35 U.S.C. §103(a), over

Katayama (U.S. Patent No. 5,294,978), and claims 39-40 stand rejected as obviousness, under 35 U.S.C. §103(a), over Katayama in view of Golubic (U.S. Patent No. 5,026,158).

INDEPENDENT CLAIM 36 (ARGUED)

Independent claim 36 requires a data recording device for preserving data that includes:

a sensor configured to detect an occurrence;

a memory configured to store at least one of audio and video data such that later stored data is recorded over previously stored data;

a non-volatile memory; and

a controller configured to transfer the data stored in the memory to the non-volatile memory based on the detection of the occurrence by the sensor [to preserve the data].

Accordingly, claim 36 requires, *inter alia*, a controller capable of transferring the data stored in the memory (such that later stored data is recorded over previously stored data) to the non-volatile memory based on the detection of the occurrence by the sensor in order to preserve the data.

The Applied Art

As discussed above, Katayama is directed to recording images of an area on semiconductor memory, with the recording activated/deactivated based on a change in the image of the area being recorded (e.g. if the image of the area becomes darker or lighter etc.). Katayama also discloses that the recorded images are transferred from the semiconductor memory to a frame buffer for purposes of display.

More particularly, Katayama discloses:

a sensor (video trigger circuit 46) which is capable of detecting an occurrence (see column 4, lines 13-31);

a memory (DRAMS or SRAMS semiconductor memory 32) capable of storing video data such that later stored data is recorded over previously stored data (the memory may be circular, see column 3, lines 42-46);

a frame buffer 40 (see column 3, line 64, through column 4, line 7); and

a controller capable of transferring the data stored in the semiconductor memory 32 to the a frame buffer 40 buffer to display the data (see column 3, line 64, through column 4, line 7).

In the Official Action of April 28, 2005, the Examiner asserts that "a non-volatile memory (see fig. 1:40), Katayama discloses a buffer." However, the Examiner then goes on to assert that "It is unclear whether the buffer is non-volatile memory due to the lack of detail. However, Examiner takes Official Notice to note that non-volatile memories are well known and used in the art and would have been obvious to utilize as a simple matter of design which yields no finding of unexpected results in the prior art."

Construing Katayama's "Buffer" 40 To Be A Non-Volatile Memory Is Inconsistent With The Well Understood Meaning In The Art Of The Term "Buffer"

As noted above, the Examiner asserts that "a non-volatile memory (see fig. 1:40), Katayama discloses a buffer."

It is unclear from the Official Action whether or not it is the Examiner's contention that Katayama's buffer 40 corresponds to the recited non-volatile memory. However, to the extent that it is so contended, it is respectfully submitted that the position is inconsistent with the well known meaning in the art of the term "buffer".

In this regard, the term "buffer" is well known in the computer arts to mean a device for temporarily storing data ("a device or storage area [memory] used to store data temporarily to compensate for differences in rates of data flow, time of occurrence of events, or amounts of data that can be handled by the devices or processes involved in the transfer or use of the data" (see www.computerdictionary.info/computer-term-details/Buffer) or "part of a RAM used for temporary storage of data that is waiting to be

sent to a device" (see: www.hyperdictionary.com/search.aspx?define=buffer).

The Proposed Substitution Of A Non-Volatile Memory For Katayama's Disclosed Buffer Lacks Support

The Examiner asserts Official Notice is taken that non-volatile memories are well known and used in the art and baldly contends "it would have been obvious to utilize [a non-volatile memory in lieu of Katayama's disclosed buffer] as a simple matter of design which yields no finding of unexpected results in the prior art".

While it is acknowledged that non-volatile memories are not new, the Examiner has failed to provide any objective rationale or factual evidence to support a conclusion that the substitution of a non-volatile memory for the buffer 40 in Katayama's disclosed system was "a simple matter of design" and therefore obvious.

Katayama discloses a memory controller 30, which stores data in memory 32 based on the detection of an occurrence by a sensor 46 (see column 3, lines 24-63, and column 4, lines 13-31) and then transfers the stored data from memory 32 to a volatile memory 40 for purposes of subsequent display (see column 3, line 64, through column 4, line 12). It should be noted that Katayama's invention is primarily directed to a unique technique for displaying the buffered data (see, for example, column 4, lines 32-40).

There is nothing in Katayama to suggest that the data stored in memory 32 could be transferred to other than a buffer (i.e. to other than a volatile memory) and still be capable of uniquely displaying the transferred data in the described manner (which is required to meet Katayama's stated objectives). Nor has the Examiner provided any rationale or other objective evidence to support a conclusion that it could, let alone how one would go about doing so (such that the system is still capable of uniquely displaying the transferred data as required to meet Katayama's objective). Thus, the Examiner's assertions can only be based on pure speculation.

It is respectfully submitted that based on Katayama's disclosure, it appears to

be a principle of operation that data be transferred from memory 32 to a buffer 40, since this would seem to be required in order to uniquely display the data in accordance with Katayama's stated objectives.

No Rationale Is Given For Why One Would Be Motivated To Substitute A Non-Volatile Memory For Katayama's Disclosed Buffer

The Examiner has also failed to provide any rationale explaining why one skilled in the art would have been motivated (by other than the present application disclosure), to attempt to modify Katayama's described system so as to transfer data stored in memory 32 to other than a buffer memory 40 (more particularly to a non-volatile memory).

The Examiner Points To The Applied Art For Support Where None Exist And Has Ignored Express Claim Limitations

The Examiner points to Katayama's teachings in column 3, line 64, through column 4, line 12, as disclosing the a transfer of data from memory 32 to memory 40 "based on the detection of an occurrence".

However, contrary to the Examiner's contention, the relied upon teachings lack any such disclosure.

Since the relied upon text in Katayama fails to disclose what the Examiner contends to be disclosed, the Examiner has effectively ignored express limitations of claim 36.

What Katayama does teach (see column 4, lines 13-31) is that the image data is initially stored in memory 32 based on the detection of an occurrence by video trigger circuit 46 for "later analysis" (see column 4, lines 20-23). As understood, this later analysis is performed in conjunction with the unique display. Thus, Katayama suggests that the transfer to buffer 40 is based on other than the detection of the occurrence by the video trigger circuit 46.

Accordingly, even if there were some objective basis to support substituting a non-volatile memory for the buffer 40 in Katayama's system (which it is respectfully submitted is not the case), Katayama would still lack any teaching or suggestion that the data stored in memory 32 could or should be transferred to the memory 40 based on the detection of an occurrence.

The Different Objectives Of The Claim 36 Invention and Applied Art Have Not Been Considered

It is perhaps worthwhile to highlight here that the claim 36 invention requires a controller which transfers data initially stored in one memory to a non-volatile memory based on the detection of an occurrence by a sensor, in order to preserve the initially stored data (see claim 36 preamble).

Katayama, on the other hand, describes a controller that transfers data (which was initially stored in one memory based on the detection of an occurrence by a sensor) to a volatile memory, in order to uniquely display the transferred data. Katayama fails to disclose any need to transfer data from the memory 32 for preservation, and hence lacks any teaching or suggestion that it would be beneficial to do so.

Thus, Katayama discloses a very different system from that recited in claim 36, in order to meet a very different objective from that recited in claim 36.

DEPENDENT CLAIM 38 (ARGUED)

Claim 38 requires that:

the sensor is further configured to detect a second occurrence; and

the controller is further configured to transfer the data stored in the memory which corresponds to a first period of time beginning prior to the detection of the first occurrence by the sensor and ending subsequent to the detection of the first occurrence by the sensor, and to transfer the data stored in the memory which corresponds to a

second period of time beginning prior to the detection of the second occurrence by the sensor and ending subsequent to the detection of the second occurrence by the sensor to the non-volatile memory based on the detection of the second occurrence by the sensor.

Accordingly, claim 38 requires, *inter alia*, that the controller be capable of transferring (i) the data stored in the memory which corresponds to a first period of time (beginning prior to the detection of the first occurrence by the sensor and ending subsequent to the detection of the first occurrence by the sensor), and (ii) the data stored in the memory which corresponds to a second period of time (beginning prior to the detection of the second occurrence by the sensor and ending subsequent to the detection of the second occurrence by the sensor) to the non-volatile memory based on the detection of the second occurrence by the sensor.

The Examiner Points To The Applied Art For Support Where None Exist And Has Ignored Express Claim Limitations

The Examiner points to Katayama's teachings in column 3, line 42, through column 4, line 32, as disclosing the required transfer of data stored in the memory which corresponds to a first period of time (associated with the detection of the first occurrence by the sensor) and to a second period of time (associated with the detection of the second occurrence by the sensor) to the buffer based on the detection of the second occurrence by the sensor.

However, contrary to the Examiner's contention, the relied upon teachings lack any such disclosure.

Since the relied upon text in Katayama fails to disclose what the Examiner contends to be disclosed, the Examiner has effectively ignored express limitations of claim 38.

DEPENDENT CLAIM 39 (ARGUED)

Claim 39 requires that the data recording device of claim 36, include:

a portable housing having the sensor, the memory, the non-volatile memory, and the controller disposed therein.

The Examiner Points To The Applied Art For Support Where None Exist And Has Ignored Express Claim Limitations

The Examiner points to Golubic's teachings in figures 1 and 8, and in column 4, lines 5-23, as disclosing the required portable housing.

However, contrary to the Examiner's contention, the relied upon teachings lack any such disclosure.

Golubic teaches an image recording unit housing 16 which is separate from the control unit 18. Thus, Golubic necessarily lacks a portable housing having both memory for recording images, and a controller as required by claim 39.

Since the relied upon text in Golubic fails to disclose what the Examiner contends to be disclosed, the Examiner has effectively ignored this express limitations of claim 39.

INDEPENDENT CLAIM 16 AND ITS DEPENDENT CLAIMS

Claims 16-18, 24 stand rejected as obviousness, under 35 U.S.C. §103(a), over Black (U.S. Patent No. 4,835,621) in view of Katayama (U.S. Patent No. 5,294,978). Claim 19 stands rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and further view of Koen (U.S. Patent No. 5,616,863). Claims 20-23 and 25-28 stand rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Andersson et al. (U.S. Patent No. 5,991,043). Claims 29-35 as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Scerbo (U.S. Patent No. 5,546,124).

INDEPENDENT CLAIM 16 (ARGUED)

Independent claim 16 requires a data recording device for preserving video image data representative of a video image corresponding to an area generally surrounding the target line of a weapon that includes:

a weapon discharge sensor operative to generate a weapon discharge sensor output signal upon at least one discharge of said weapon;

at least one semiconductor memory;

a video camera operative to repeatedly generate video image data representative of said video image; and

a controller operative to cause the storage of digital data representative of said video image data within said semiconductor memory at predetermined times both before and after the generation of said weapon discharge output signal;

said controller being further operative to preserve selected digital data stored in said at least one semiconductor memory in response to said weapon discharge sensor output signal.

Accordingly, claim 16 requires, *inter alia*, a controller capable (i) of causing the storage of digital data representative of video image data within semiconductor memory at predetermined times both before and after the generation of a weapon discharge output signal by a weapon discharge sensor, and (ii) of preserving selected digital data stored in the semiconductor memory in response to a weapon discharge sensor output signal.

The Examiner Points To The Applied Art For Support Where None Exist

The Examiner relies on Black's disclosure in column 3, lines 11-15, and column 7, lines 39-47, and Katayama's disclosure in column 4, line 23-31, as disclosing the recited preservation of selected digital data representative of the video image data by a controller.

However, the relied upon disclosure in columns 3 and 7 of Black describes the initial recording of images, and has nothing whatsoever to do with preservation of data

by a controller (which requires user activation of the on/off video recording switch), let alone the preservation of selected stored digital data representative of video image data.

While the relied upon disclosure in column 4 of Katayama describes the preservation of digital data representing video images on memory 32 based on detection of a change in a static scene, it lacks any disclosure that the memory controller 30 is capable of preserving such digital data in response to a weapon discharge sensor output signal, let alone preserving only selected portions of the digital data already stored in the memory 32.

Express Claim Limitations Have Been Ignored

Since the relied upon text in Black and Katayama fails to disclose what the Examiner contends to be disclosed, the Examiner has effectively ignored express limitations of claim 16.

Furthermore, Black discloses manually turning off the video recording switch of the video camera to stop the recording and thereby preserve the recorded images on video film, and lacks any disclosure that the video recording switch is or could be turned off in response to a sensed event, let alone in response to a weapon discharge sensor output signal. Additionally, there is nothing in Black's disclosure to suggest there is any need for such a feature.

Further still, Black preserves all the recorded images on video film by manually turning off the video recording switch, and lacks any suggestion that only selected portions of the recorded video images are or could be preserved.

Katayama discloses deactivating and thereby preserving data representing recorded images stored on a semiconductor memory 32 in response to a change in the image itself. However, Katayama, lacks any suggestion that stored images could or should be preserved in response to the detection of a weapon discharge sensor output signal. Furthermore, like Black, Katayama lacks any suggestion that selected data

stored in the semiconductor memory 32 should or could be preserved.

No Rationale Is Offered For Why One Would Be Motivated To Combine Black With Katayama As Proposed

The Examiner has also failed to provide any rationale as to why one skilled in the art would have been motivated (by other than by the present application disclosure), to attempt to modify Black's described system so as to store data on a semiconductor memory as taught by Katayama.

Indeed, it would appear that doing so would be inconsistent with Black's objectives and therefore violate a principle of Black's operations.

In this regard, the Examiner has failed to explain how Black could meet its objectives if it were modified to preserve recorded image data based on a change in the recorded images, as taught by Katayama. As can be best understood, such a modification would reduce the shooter's flexibility to turn-off the video recording switch of the video camera to stop the recording at the shooter's own discretion, in accordance with the explicit teaching of Black.

DEPENDENT CLAIM 25 (ARGUED)

Claim 25 requires that the semiconductor memory be at least one dynamic random access memory and a non-volatile memory, and that the controller be capable of storing the digital data within the dynamic random access memory periodically and, in response to the weapon discharge sensor output signal, of causing selected digital data stored within the dynamic random access memory to be read from the dynamic random access memory and stored within the non-volatile memory.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

As discussed above with respect to claims 36 and 16, neither Black nor Katayama suggests causing selected stored video image data to be read from one semiconductor memory and written to another non-volatile semiconductor memory in response to an event sensor output signal. Andersson is only applied for its teachings

of a microphone for detecting a weapon discharge, and therefore does not cure the deficiency in the based combination.

In this regard, the Examiner has failed to explain how Black could meet its objectives if it were modified to preserve recorded image data based on a change in the recorded images, as taught by Katayama. As can be best understood, such a modification would reduce the shooter's flexibility to turn-off the video recording switch of the video camera to stop the recording at the shooter's own discretion, in accordance with the explicit teaching of Black.

DEPENDENT CLAIM 29 (ARGUED)

Claim 29 requires that the controller include a bidirectional communications interface and be operative, in response to receipt of a read command having a specified password on said interface, to transmit digital data preserved within the semiconductor memory over the interface.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

The Examiner relies on Scerbo for disclosing such a controller, particularly pointing to column 6, lines 35-44.

However, the referenced text relates to intermittent alternate code-locking and unlocking of the recording substrate to allow the substrate to be inserted and removed from the space, and clearly lacks any teaching of a controller which requires a read command having a specified password before transmitting preserved data from the memory.

DEPENDENT CLAIM 33 (ARGUED) AND CLAIM 34 (ARGUED)

Parent dependent claims 31 and 32 require (i) an enable sensor, having a switch coupled to the controller, that is operative to produce a signal having a first state when the weapon is disposed within a holster and a signal having a second state when the

weapon is not disposed within said holster, and (ii) a controller operative to cause the storage of the digital data within the semiconductor memory only when the enable sensor signal is in the second state.

Claim 33 requires that the switch include a magnetically actuatable switch.

Claim 34 requires that the magnetically actuatable switch include a magnetically actuatable reed switch.

The Basis For The Rejection Cannot Be Understood and Effectively Ignores Express Claim Limitations

The Examiner relies on Scerbo as disclosing a switch. While acknowleging that Scerbo lacks any teaching or suggestion of a magnetic switch as required, the Examiner relies on Official Notice and contends that it would be obvious to substitute a magnetic switch for Scerbo's mechanical switch because of "proximity switching".

It is unclear what "proximity switching" is. Furthermore, the Examiner fails to provide any insight whatsoever as to why one skilled in the art would be motivated to modify Scerbo's described switch on the basis of "proximity switching" and if such motivation existed why one would chose to modify Scerbo's described switch to include the claimed "magnetic switch".

Indeed, there is no suggestion within Scerbo that a magnetic rather than mechanical switch could be, let alone should advantageously be, used. Furthermore, the Examiner provides no support for the contention that substituting the claimed "magnetic switch" for Scerbo's disclosed mechanical switch would be advantageous.

INDEPENDENT CLAIM 1 AND ITS DEPENDENT CLAIMS

Claims 1-2, 5-9, and 13 stand rejected as obviousness, under 35 U.S.C. §103(a), Over Black (U.S. Patent No. 4,835,621) in view of Katayama (U.S. Patent No. 5,294,978). Claim 3 stands rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and further view of Koen (U.S. Patent No. 5,616,863). Claim

4 stands rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Andersson et al. (U.S. Patent No. 5,991,043). Claims 10-11 stand rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Fielder (U.S. Patent No. 5,845,240). Claims 12 and 14-15 stand rejected as obviousness, under 35 U.S.C. §103(a), over Black in view of Katayama and in further view of Scerbo (U.S. Patent No. 5,546,124).

INDEPENDENT CLAIM 1 (ARGUED)

Independent claim 1 requires that a method for recording data in response to the firing of a weapon along a target line, include:

sensing at least one discharge of said weapon with a weapon discharge sensor and in response to each respective discharge of said weapon, generating a weapon discharge sensor output signal;

repeatedly storing video image data within a semiconductor memory within a video recording device mounted to said weapon;

in response to the detection of said weapon discharge sensor output signal, preserving in said semiconductor memory within said video recording device, video image data corresponding generally to an area surrounding said target line and corresponding to at least some of said video image data stored preceding and subsequent to the weapon discharge sensor output signal corresponding to said at least one firing of said weapon.

Accordingly, claim 1 requires, *inter alia*, that, in response to the detection of a weapon discharge sensor output signal, video image data corresponding generally to an area surrounding a target line and to at least some of said video image data stored preceding and subsequent to the weapon discharge sensor output signal, which in turn corresponds to at least one firing of the weapon, be preserved in a semiconductor memory within a video recording device.

The Examiner Points To The Applied Art For Support Where None Exist

As discussed above with reference to claim 16, the Examiner relies on Black's disclosure in column 3, lines 11-15, and column 7, lines 39-47, and Katayama's disclosure in column 4, line 23-31, as disclosing the recited preservation of digital data representative of the video image data by a controller.

However, the relied upon disclosure in columns 3 and 7 of Black describes the initial recording of images, and has nothing whatsoever to do with preservation of data by a controller (which requires user activation of the on/off video recording switch).

While the relied upon disclosure in column 4 of Katayama describes the preservation of data representing video images stored on memory 32 based on detection of a change in a static scene, it lacks any disclosure that the memory controller 30 is capable of preserving such stored digital data in response to a weapon discharge sensor output signal.

Express Claim Limitations Have Been Ignored

As noted above, since the relied upon text in Katayama fails to disclose what the Examiner contends to be disclosed, the Examiner has effectively ignored express limitations of claim 1.

Furthermore, Black discloses manually turning off the video recording switch of the video camera to stop the recording and thereby preserve the recorded images on video film, and lacks any disclosure that the video recording switch is turned off in response to a sensed event, let alone in response to a weapon discharge sensor output signal. Additionally, there is nothing in Black's disclosure to suggest there is any need for such a feature.

Katayama discloses deactivating and thereby preserving data representing images stored on a semiconductor memory 32 in response to a change in the image itself. However, Katayama, lacks any suggestions that stored images could or should be preserved in response to the detection of a weapon discharge sensor output signal.

No Rationale Is Offered For Why One Would Be Motivated To Combine Black With Katayama As Proposed

The Examiner has also failed to provide any rationale as to why one skilled in the art would have been motivated (by other than by the present application disclosure), to attempt to modify Black's described system so as to store data on a semiconductor memory as taught by Katayama.

Indeed, it would appear that doing so would be inconsistent with Black's objectives and therefore violate a principle of Black's operations.

In this regard, the Examiner has failed to explain how Black could meet its objectives if it were modified to preserve recorded image data based on a change in the recorded images, as taught by Katayama. As can be best understood, such a modification would reduce the shooter's flexibility to turn-off the video recording switch of the video camera to stop the recording at the shooter's own discretion, in accordance with the explicit teaching of Black.

DEPENDENT CLAIM 8 (ARGUED)

Claim 8 requires storing the video image data associated with each discharge of said weapon in a portion of the semiconductor memory assigned for the respective discharge, and preserving selected video image data associated with each discharge of said weapon.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

As discussed above, neither Black nor Katayama have any suggestion that selected stored video image data disclosure should or could be preserved.

Furthermore, the Examiner's reliance on Katayama's teachings in column 4, line 26-31, as disclosing the recited storing the video image data associated with each discharge of said weapon in a portion of the semiconductor memory assigned for the respective discharge, is mistaken. The cited teachings of Katayama have nothing

whatsoever to do with the storage of video image data associated with an each event in a portion of semiconductor memory assigned for the respective event.

Hence, the rejection of claim 8 effectively ignores explicit limitations of the claim.

DEPENDENT CLAIM 9 (ARGUED)

Claim 9 requires that the portion of semiconductor memory assigned for the storage of video data associated with each successive discharge of said weapon is smaller than the portion associated with the prior discharge of said weapon.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

The Examiner's reliance on Katayama's teachings in column 4, line 27-28, as disclosing the recited limitation that the portion of semiconductor memory assigned for the storage of video data associated with each successive discharge of said weapon is smaller than the portion associated with the prior discharge of said weapon, is mistaken.

The relied upon teachings of Katayama only disclose that image frames before and after an event may be stored and have nothing whatsoever to do with portions of storage assigned to different events.

Hence, the rejection of claim 9 effectively ignores explicit limitations of the claim.

DEPENDENT CLAIM 10 (ARGUED) AND CLAIM 11 (ARGUED)

Claim 10 requires (i) generation of an audio signal, representative of sound within the vicinity of a weapon, with a microphone electrically coupled to the video recording device, (ii) sampling of the audio signal with an analog to digital converter to produce digital data comprising a digital representation of the audio signal, and (iii) storing, within the semiconductor memory, at least some of the digital data extending temporally around each discharge of the weapon.

Claim 11 requires that the digital data be stored within the semiconductor memory

employing a nonlinear quantization technique for the representation of the data.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

The Examiner contends that Fielder's disclosure in column 4, lines 34-39, and column 5, line 63, through column 6, line 9, makes obvious the combined audio and video recording as recited in claim 10.

However, there is nothing in the cited text to suggest combined audio and video recording temporally around the discharge of a weapon.

Further, the referenced text lacks any suggestion that the digital data is stored in a semiconductor memory employing a non-linear quantization technique as recited in claim 11. The Examiner contends that the use of such a technique to store such data is inherent, but provides no rationale whatsoever supporting this conclusion.

Thus, the limitations of claims 10 and 11 have effectively been ignored.

DEPENDENT CLAIM 13 (ARGUED)

Claim 13 requires repeatedly storing video image data comprising video frames within a first semiconductor memory, and in response to each one of the weapon discharge sensor output signals, reading selected video image data from the first semiconductor memory and writing the selected video image data to a second non-volatile semiconductor memory.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

As discussed above, neither Black nor Katayama have any suggestion (i) to preserve selected stored video image data disclosure or (ii) to read video image data from one semiconductor memory and write such data to another non-volatile semiconductor memory in response to each one of multiple event sensor output signals.

Furthermore, the Examiner's reliance on Katayama's disclosure in column 3, line 64, through column 4, line 7, effectively ignores the explicit limitations of claim 13.

DEPENDENT CLAIM 14 (ARGUED)

Claim 14 requires that the stored video image data be preserved within the second semiconductor memory, at least until the video image data is read from the second semiconductor memory in response to a request from a user presenting a valid password to the video recording device.

The Examiner Points To The Applied Art For Support Where None Exist And Ignores Express Claim Limitations

The Examiner points to Scerbo, at column 6, lines 35-44 as teaching the use of codes, or passwords, in order to gain access to video data which has been stored in a recording medium.

However, the referenced text relates to intermittent alternate code-locking and unlocking a recording substrate detainable within the space. As best understood, this means that the security codes are used to prevent unauthorized removal of the recording medium, and has nothing to do with reading the data on the medium through an interface.

2. THERE IS NO MOTIVATION TO COMBINE OR MODIFY THE ART AS PROPOSED BY THE EXAMINER

It is incumbent upon the Examiner to provide a basis in fact and/or cogent technical reasoning to support the conclusion that one having ordinary skill in the art would have been motivated to combine references to arrive at a claimed invention. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). The Examiner is required to provide a reason why one having ordinary skill in the art would have been led to modify the prior art reference to arrive at the claimed invention. Ashland Oil, Inc. v.

Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). Such a reason must stem from some teaching, suggestion or inference in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.d 281, 227 USPQ 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

As discussed above in detail, it is respectfully submitted that there is no motivation to combine Black and Katayama or to modify Black in view of Katayama or Katayama in view of the Official Notices taken, as proposed by the Examiner.

3. THE APPLIED REFERENCES FAIL TO SUGGEST THE CLAIMED INVENTION

In rejecting claims under 35 U.S.C. 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); In re Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). It also is incumbent upon the Examiner to provide a basis in fact and/or cogent technical reasoning to support the conclusion that one having ordinary skill in the art would have been motivated to combine references to arrive at a claimed invention. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). In so doing, the Examiner is required to make the factual determinations set forth in Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), and to provide a reason why one having ordinary skill in the art would have been led to modify the prior art reference to arrive at the claimed invention. Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). Such a reason must stem from some teaching, suggestion or inference in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); ACS Hospital

Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). Inherency requires certainty, not speculation. In re Rijckaert, 9 F.3rd 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); In re Oelrich, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); In re Wilding, 535 F.2d 631, 190 USPQ 59 (CCPA 1976). Objective evidence must be relied upon to defeat the patentability of the claimed invention. Ex parte Natale, 11 USPQ2d 1222 (BPAI 1988).

In determining obviousness, the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as a whole for which patentability is claimed. Hartness Int'l, Inc. v. Simplimatic Eng'g Co., 819 F.2d 1100, 2 USPQ2d 1826 (Fed. Cir. 1987). It is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Wesslau, 353 F.2d 238, 147 USPQ 391 (CCPA 1951). Piecemeal reconstruction of prior art patents is improper, In re Kamm, 452 F.2d 1052, 172 USPQ 298 (CCPA 1972). The Examiner must give adequate consideration to the particular problems and solution addressed by the claimed invention. Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); In re Rothermel, 276 F.2d 393, 125 USPQ 328 (CCPA 1960).

The fact that the prior art could be modified so as to result in the combination defined by the claims does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986). The test is what the combined teachings would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 413, 208 USPQ 817 (CCPA 1981). Simplicity and hindsight are not proper criteria for resolving obviousness, In re Warner, supra. The proper approach to the issue of obviousness is whether the hypothetical person of ordinary skill in the art, familiar with the references, would have found it obvious

to make a structure corresponding to what is claimed. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Semaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). Hindsight obviousness after the invention has been made is not the test. In re Carroll, 601 F2d 1184, 202 USPQ 571 (CCPA 1979). The reference, viewed by itself and not in retrospect, must suggest doing what applicant has done. In re Shaffer, 229 F2d 476, 108 USPQ 326 (CCPA 1956); In re Skoll, 523 F2d 1392, 187 USPQ 481 (CCPA 1975).

Again, the issue is not whether it is within the skill of the artisan to make the proposed modification but, rather, whether a person of ordinary skill in the art, upon consideration of the references, would have found it obvious to do so. The fact that the prior art could be modified so as to result in the combination defined by the claims would not have made the modification obvious unless the prior art suggests the desirability of the modification. See In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986), In re Keller, supra. See In re Laskowski, F2d., 10 USPQ2d 1397 (CAFC 1989).

For the reasons detailed above it is respectfully submitted that each of the following features or limitations patentably distinguish the present invention over the applied prior art:

The claim 1 preservation in said semiconductor memory within said video recording device and in response to the detection of said weapon discharge sensor output signal, of video image data corresponding generally to an area surrounding said target line and corresponding to at least some of said video image data stored preceding and subsequent to the weapon discharge sensor output signal corresponding to said at least one firing of said weapon.

The claim 8 storage of the video image data associated with each discharge of said weapon in a portion of the semiconductor memory assigned for the respective discharge.

The claim 9 requirement that the portion of the semiconductor memory assigned for the storage of video data associated with each successive discharge of the weapon

is smaller than the portion associated with the prior discharge of the weapon.

The claim 10 generation of an audio signal with a microphone electrically coupled to the video recording device, wherein said audio signal is representative of sound within the vicinity of said weapon, the sampling of the audio signal with an analog to digital converter to produce a digital data comprising a digital representation of said audio signal, and the storing within the semiconductor memory at least some of said digital data extending temporally around each discharge of said weapon.

The claim 11 storage of the digital data within the semiconductor memory employing a nonlinear quantization technique for the representation of the data.

The claim 13 reading of selected video image data from the first semiconductor memory and writing the selected video image data to a second non-volatile semiconductor memory, in response to each one of the weapon discharge sensor output signals.

The claim 14 preserving within the second semiconductor memory, of the stored video image data at least until said video image data is read from said second semiconductor memory in response to a request from a user presenting a valid password to said video recording device.

The claim 16 controller operative to preserve selected digital data stored in the at least one semiconductor memory in response to the weapon discharge sensor output signal.

The claim 25 at least one semiconductor memory comprising at least one dynamic random access memory and a non-volatile memory, and controller operative in response to said weapon discharge sensor output signal to cause selected digital data stored within the dynamic random access memory to be read from the dynamic random access memory and stored within the non-volatile memory.

The claim 29 controller operative in response to receipt of a read command having a specified password on the interface to transmit digital data preserved within the at least one semiconductor memory over the interface.

The claim 33 switch having a magnetically actuatable switch.

The claim 34 magnetically actuatable switch having a magnetically actuatable reed switch.

The claim 36 non-volatile memory and controller configured to transfer the data stored in the memory to the non-volatile memory based on the detection of the occurrence by the sensor, in order to preserve the data.

The claim 38 controller configured to transfer the data stored in the memory which corresponds to a first period of time (beginning prior to the detection of the first occurrence by the sensor and ending subsequent to the detection of the first occurrence by the sensor), and to transfer the data stored in the memory which corresponds to a second period of time (beginning prior to the detection of the second occurrence by the sensor and ending subsequent to the detection of the second occurrence by the sensor) to the non-volatile memory based on the detection of the second occurrence by the sensor.

The claim 39 portable housing having the sensor, the memory, the non-volatile memory, and the controller disposed therein.

4. THE REJECTION IS BASED ON EITHER AN IMPROPER HINDSIGHT RECONSTRUCTION OF THE INVENTION BASED ON THE APPLICATIONS OWN TEACHINGS OR ON PURE SPECULATION

Hindsight obviousness after the invention has been made is not the test. In re Carroll, 601 F2d 1184, 202 USPQ 571 (CCPA 1979). The reference, viewed by itself and not in retrospect, must suggest doing what applicant has done. In re Shaffer, 229 F2d 476, 108 USPQ 326 (CCPA 1956); In re Skoll, 523 F2d 1392, 187 USPQ 481 (CCPA 1975).

Inherency requires certainty, not speculation. In re Rijckaert, 9 F.3rd 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303

(Fed. Cir. 1983); In re Oelrich, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); In re Wilding, 535 F.2d 631, 190 USPQ 59 (CCPA 1976). Objective evidence must be relied upon to defeat the patentability of the claimed invention. Ex parte Natale, 11 USPQ2d 1222 (BPAI 1988).

As discussed in detail above, the appealed claims have been rejected without objective factual support or rationale. The prior art cited in support of the rejections has been applied in a manner inconsistent with its own teachings. A combination has been asserted for which no motivation exist. Express limitations set forth in the claims have been completely or effectively ignored. The evidence shows that there is nothing in the applied prior art to support the Examiner's position that the present claims are anticipated or obvious. Hence, at best, it can only be concluded that the rejection of the claims reflects either an improper hindsight reconstruction of the invention based on the teachings of the subject application itself.

CONCLUSION

It is respectfully submitted that the Examiner (i) has failed to establish a prima facie case for the rejection, (ii) has proposed to combine art and modify applied art in a manner which is unmotivated, (iii) has failed to apply art which teaches or suggests the claimed invention, and (iv) has either improperly reconstructed the invention using the inventors own disclosure or relied on pure speculation in rejecting the claims. Thus, the rejection of the pending claims either as obvious under 35 U.S.C. §103(a) over the applied prior art, whether taken individually or in any combination, is improper.

In summary, Applicants respectfully submit that the applied references do not teach or suggest features recited in each of the rejected independent claims, as well as those recited in numerous dependent claims. Furthermore, the proposed combinations of applied references and modifications are themselves unmotivated and therefore improper. Accordingly, it is submitted that the art does not provide any teaching, or suggestion within its teachings, which would lead to the features or advantages of the instant invention, and

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the claims patentably define over the art. Thus, the rejection of the pending claims is in error, and reversal is clearly in order and is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 01-2135 and please credit any excess fees to such deposit account.

Respectfully Submitted,

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PATENT

APPENDIX A OF CLAIMS UNDER APPEAL

1. A method for recording data in response to the firing of a weapon along a target line, comprising the steps of:

sensing at least one discharge of said weapon with a weapon discharge sensor and in response to each respective discharge of said weapon, generating a weapon discharge sensor output signal;

repeatedly storing video image data within a semiconductor memory within a video recording device mounted to said weapon;

in response to the detection of said weapon discharge sensor output signal, preserving in said semiconductor memory within said video recording device, video image data corresponding generally to an area surrounding said target line and corresponding to at least some of said video image data stored preceding and subsequent to the weapon discharge sensor output signal corresponding to said at least one firing of said weapon.

2. The method of claim 1 wherein said weapon comprises a gun.

3. The method of claim 1 wherein said sensing step further comprises the step of sensing the discharge of said weapon with an accelerometer.

4. The method of claim 1 wherein said sensing step further comprises the step of sensing the discharge of said weapon with a microphone.

5. The method of claim 1 wherein said weapon includes a trigger operative to activate a switch and said sensing step further comprises the step of sensing the discharge of said weapon upon the sensing of a change of state of said switch.

6. The method of claim 1 wherein said storing step further comprises the steps of:

repeatedly storing video image data comprising video frames within the semiconductor memory;

in response to each one of said discharge sensor output signals, preserving within said semiconductor memory, video image data corresponding to at least one frame stored within said semiconductor memory prior to the respective discharge sensor output signal and video image data corresponding to at least one frame stored within said semiconductor memory subsequent to the respective discharge sensor output signal.

7. The method of claim 6 wherein said step of repeatedly storing video image data comprising video frames within said semiconductor memory comprises the step of storing said video frames within said semiconductor memory periodically.

8. The method of claim 6 wherein said storing step comprises the step of storing said video image data associated with each discharge of said weapon in a portion of the semiconductor memory assigned for the respective discharge; and

preserving selected video image data associated with each discharge of said weapon.

9. The method of claim 8 wherein said portion of said semiconductor memory assigned for the storage of video data associated with each successive discharge of said weapon is smaller than the portion associated with the prior discharge of said weapon.

10. The method of claim 1 further comprising the steps of:

generating an audio signal with a microphone electrically coupled to said video recording device, wherein said audio signal is representative of sound within the vicinity

of said weapon; and

sampling said audio signal with an analog to digital converter to produce a digital data comprising a digital representation of said audio signal; and

storing within said semiconductor memory at least some of said digital data extending temporally around each discharge of said weapon.

11. The method of claim 10 further comprising the step of storing said digital data within said semiconductor memory employing a nonlinear quantization technique for the representation of said data.

12. The method of claim 1 further comprising the steps of:

generating a signal with a holster state sensor having a first state when said weapon is within a holster and a second state when said weapon is not within said holster; and

storing said video data within said semiconductor memory only when said holster state sensor signal is in said second state.

13. The method of claim 1 wherein said storing step further comprises the steps of:

repeatedly storing video image data comprising video frames within a first semiconductor memory;

in response to each one of said weapon discharge sensor output signals, reading selected video image data from said first semiconductor memory and writing said selected video image data to a second non-volatile semiconductor memory.

14. The method of claim 13 further comprising the step of preserving within said second semiconductor memory, said stored video image data at least until said video image data is read from said second semiconductor memory in response to a request from a user presenting a valid password to said video recording device.

15. The method of claim 1 further comprising the step of storing date and time information within said semiconductor memory in association with at least some of video image data.

16. A data recording device for preserving video image data representative of a video image corresponding to an area generally surrounding the target line of a weapon, comprising:

a weapon discharge sensor operative to generate a weapon discharge sensor output signal upon at least one discharge of said weapon;

at least one semiconductor memory;

a video camera operative to repeatedly generate video image data representative of said video image; and

a controller operative to cause the storage of digital data representative of said video image data within said semiconductor memory at predetermined times both before and after the generation of said weapon discharge output signal;

said controller being further operative to preserve selected digital data stored in said at least one semiconductor memory in response to said weapon discharge sensor output signal.

17. The data recording device of claim 16 wherein said weapon comprises a gun.

18. The data recording device of claim 16 wherein said controller is operative to preserve at least some of said digital data stored within said at least one semiconductor memory prior to generation of said weapon discharge sensor output signal and some of said digital data stored within said semiconductor memory following detection of said weapon discharge sensor output signal.

19. The data recording device of claim 16 wherein said weapon discharge sensor comprises an accelerometer mechanically coupled to said data recording device.

20. The data recording device of claim 16 wherein said weapon discharge sensor comprises a microphone.

21. The data recording device of claim 20 wherein said weapon includes a trigger and said weapon discharge sensor comprises a switch coupled to said trigger of said weapon.

22. The data recording device of claim 21 wherein said controller is operative to cause the storage of said digital data within said at least one semiconductor memory periodically.

23. The data recording device of claim 22 wherein said controller is operative to preserve digital data associated with each of said weapon discharge sensor output signals in a separate portion of said at least one semiconductor memory.

24. The data recording device of claim 16 wherein said at least one semiconductor memory comprises at least one dynamic random access memory.

25. The data recording device of claim 22 wherein said at least one semiconductor memory comprises at least one dynamic random access memory and a non-volatile memory, said controller is operative to store said digital data within said dynamic random access memory periodically and said controller is further operative in response to said weapon discharge sensor output signal to cause selected digital data stored within said dynamic random access memory to be read from said dynamic random access memory and stored within said non-volatile memory.

26. The data recording device of claim 25 wherein said nonvolatile memory comprises at least one flash memory.

27. The data recording device of claim 25 wherein said nonvolatile memory comprises at least one bubble memory.

28. The data recording device of claim 25 wherein said nonvolatile memory comprises an electrically erasable programmable random access memory.

29. The data recording device of claim 16 wherein said controller includes a bidirectional communications interface and said controller is operative in response to receipt of a read command having a specified password on said interface to transmit digital data preserved within said at least one semiconductor memory over said interface.

30. The data recording device of claim 29 wherein said bidirectional communications interface comprises a bidirectional serial interface.

31. The data recording device of claim 16 further comprising an enable sensor coupled to said controller, wherein said enable sensor is operative to produce a signal having a first state when said weapon is disposed within a holster and said enable sensor is operative to produce a signal having a second state when said weapon is not disposed within said holster, and said controller is operative to cause the storage of said digital data within said at least one semiconductor memory only when said enable sensor signal is in said second state.

32. The data recording device of claim 31 wherein said enable sensor comprises a

switch.

33. The data recording device of claim 32 wherein said switch comprises a magnetically actuatable switch.

34. The data recording device of claim 33 wherein said magnetically actuatable switch comprises a magnetically actuatable reed switch.

35. The data recording device of claim 16 further comprising:

a clock operative to generate date and time information;

a character generator operative to generate digital representations of said date and time information; and

said controller being operative to store at least some of said digital representations of said date and time information within said at least one semiconductor memory in association with selected video image data.

36. A data recording device for preserving data, comprising:

a sensor configured to detect an occurrence;

a memory configured to store at least one of audio and video data such that later stored data is recorded over previously stored data;

a non-volatile memory; and

a controller configured to transfer the data stored in the memory to the non-volatile memory based on the detection of the occurrence by the sensor.

37. The data recording device of claim 36, wherein the controller is further configured to transfer the data stored in the memory which corresponds to a period of time beginning

prior to the detection of the occurrence by the sensor and ending subsequent to the detection of the occurrence by the sensor.

38. The data recording device of claim 36, wherein:

the occurrence is a first occurrence;

the sensor is further configured to detect a second occurrence; and

the controller is further configured to transfer the data stored in the memory which corresponds to a first period of time beginning prior to the detection of the first occurrence by the sensor and ending subsequent to the detection of the first occurrence by the sensor, and to transfer the data stored in the memory which corresponds to a second period of time beginning prior to the detection of the second occurrence by the sensor and ending subsequent to the detection of the second occurrence by the sensor to the non-volatile memory based on the detection of the second occurrence by the sensor.

39. The data recording device of claim 36, further comprising:

a portable housing having the sensor, the memory, the non-volatile memory, and the controller disposed therein.

40. The data recording device of claim 36, further comprising:

a weapon;

wherein the occurrence is the firing of the weapon.